



# THE PLAIN DEALER

## Biomedical startup with \$600,000 promise from investors moving to NE Ohio

Catheter clearer draws \$600,000 investment

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**Mary Vanac**

**Plain Dealer Reporter**

A biomedical startup company that developed a mechanical system to clear drainage catheters has been promised \$600,000, mostly from Northeast Ohio investors.

Clear Catheter Systems will use the money to move to Cleveland and hire its first employees here, said Dr. Edward Boyle, a heart, blood vessel and chest surgeon in Bend, Ore., who is the company's chief executive.

"Our goal for the next six to eight months is to go from that early development stage to getting our prototypes manufactured for human use," Boyle said.

Clear Catheter Systems also expects to test its device - an "active flossing mechanism" that sweeps catheter walls to keep them clean - and to apply for Food and Drug Administration clearance to sell it, within eight months.

The company, formerly known as PleuraFlow, will get \$250,000 from the Global Cardiovascular Innovation Center at the Cleveland Clinic.

It will get a like amount from Xgen Ltd., a Cleveland investment partnership primarily owned by the family of radio and dot-com mogul Tom Embrescia.

An additional \$100,000 will come from wealthy individual investors, often called "angels," who previously invested in the Bend, Ore.-based technology.

Boyle watched his patients endure the discomfort of having large tubes - the patients called them "garden hoses" - installed in their chests to allow fluid and air to escape after heart or lung surgery.

Worse, the tubes, called catheters, tended to clog.

While working on a technology to solve his patients' problem, Boyle found a patent on the same subject by Dr. Marc Gillinov, also a cardiovascular and thoracic surgeon, at the Clinic. The two agreed to work together.

The Clinic and Boyle's company, Medical Device Innovations, created Clear Catheter Systems late last year.

Boyle expects his company's device to be used by patients who need drains after many types of surgeries, as well as in smaller catheters, which would be more comfortable for patients.

His company will need more money, though, if that is to happen.

"Once we do a formal rollout of the product, it's going to require a lot more funding" to take it to market, Boyle said. Clear Catheter Systems plans to begin raising serious venture capital - up to \$5 million - early next year.

Boyle said he is impressed with Ohio's support for medical innovation.

The state's Third Frontier Project granted \$60 million to the Clinic's Global Cardiovascular Innovation Center in late 2006. The center has been sub-granting this money to promising heart-related startups.

The center and Cleveland Clinic Innovations started looking at Clear Catheter's technology late last year, said Tom Sudow, vice president of business attraction for Team NEO, the organization that markets Northeast Ohio to out-of-state businesses.

"It was a very interesting technology," said Sudow, who's currently working solely on behalf of the heart center. "There was a real need for it in the field."

Clear Catheter fits his center's goals of creating companies and locating them in Cleveland, adding to the "symphony" of biomedical innovation in the region, Sudow said.

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